

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed September 13, 2004 ("Office Action"). At the time of the Office Action, Claims 1-36 were pending in the application. The Examiner rejects Claims 1-36. Applicants have amended Claim 22 to improve the readability of the claim. No new matter has been introduced by this amendment, and Applicants do not admit that these amendments were made as a result of any cited art. Applicants respectfully request reconsideration and favorable action in this case.

Non-Statutory Double Patenting Rejection

The Office Action provisionally rejects Claims 1-36 of the present Application under the judicially created doctrine of obviousness-type double patenting. Applicants traverse this rejection but stand willing to file a terminal disclaimer upon an indication of allowable subject matter.

Section 102 Rejections

The Examiner rejects Claims 1-3, 5-13, 15-24, and 26-36 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,979,165 issued to Dighe et al. ("*Dighe*"). Applicants traverse these rejections for the reasons described below.

Claim 1 is allowable because *Dighe* does not teach or suggest "in response to determining **the frame type [of a frame for storing information]**, scheduling periodic transmission of the frame from a node in the network," [emphasis added] as recited by Claim 1. The Office Action identifies col. 19, line 7 through col. 20, line 2 of *Dighe*, which describes the process of scheduling the transmission of **a packet**, as showing this limitation. This is incorrect because *Dighe* describes a transmission scheduling process that is based on **the type and the length of a packet** – which refers to a unit of data – rather than **the type of a frame** – which refers to a vehicle for carrying the data.¹ For example, *Dighe* teaches scheduling the transmission of packets depending on whether the packet is a statistical packet or a periodic packet. (See col. 1, lines 47-54, which states "Problems associated with priority of transmission and/or switching of periodic packets and statistical packets are mitigated, in

¹ Concerning some embodiments of a frame, page 24, lines 25-30 of the present application states, "When operating within a slave node 12 or master node 16, network interface unit 28 receives frames 22 transmitted within network 10, stores a copy of the frame in main memory 72, and **inserts data into or extracts data from slots 40 of frames 22**." [emphasis added]

accordance with an aspect of the invention, by employing a packet transmission and/or switching arrangement in which statistical packets are scheduled for transmission and a prescribed interval is reserved for transmission of periodic packets for each scheduled statistical packet.”) Nothing in these or any other portions of *Dighe* describes scheduling the transmission of a frame for storing information based on the frame type. Thus, Claim 1 is allowable. Favorable action is requested.

Claim 7 is allowable because *Dighe* does not teach or suggest “in response to determining the first maximum size [of a first frame for storing information] and the second maximum size [of a second frame for storing information], scheduling periodic transmission of the first and second frames beginning at respective first and second scheduled times,” [emphasis added] as recited by Claim 7. The Office Action appears to suggest that the scheduled time of service and the periodic packet described in col. 16, line 63 through col. 19, line 5 and col. 21, line 44 – col. 22, line 15 show this limitation. This is incorrect because the identified portions appear to describe a scheduling of a packet transmission based on an actual packet length and an actual number of packet words, not the maximum size of a particular type of a frame for storing data. (See, for example, col. 17, lines 2-10 and lines 45-51 of *Dighe*). Because this limitation is not shown by *Dighe*, Claim 7 is allowable. Favorable action is requested.

Claim 11 is allowable because *Dighe* does not teach or suggest “repeatedly transmitting the second frame [for storing information] to a plurality of nodes in the network at a second rate, the first rate being unequal to the second rate,” [emphasis added] as recited by Claim 11. The Office Action appears to suggest that the fixed and variable packet lengths described in col. 6, lines 29-66 of *Dighe* show this limitation, but this is incorrect. The identified portion of *Dighe* in fact describes the actual size of the data (indicated using units such as bytes or a number of words, for example), but does not disclose anything concerning a repeated transmission of a frame at a particular rate (indicated using units such as hertz, for example) that is unequal to another rate. (For example, see col. 6, lines 33-45, which describes information words of different lengths.) Because this limitation is not shown, Claim 11 is allowable. Favorable action is requested.

Claim 15 is allowable because *Dighe* does not teach or suggest “transmitting in response to the transmission schedule table a sequence of frames of a first designated type to each of the serially interconnected nodes of the network when an entry exists for a given

designated type of frame,” as recited by Claim 15. The Office Action asserts that the sequence of timing diagrams disclosed in col. 5, lines 7-37, col. 20, line 3 through col. 21, line 5, and col. 21, line 44 through col. 22, line 15 shows this limitation. This is incorrect because the identified portions of *Dighe* appears to describe a sequence for the transmission of packets **based on the packet type and size**. (See col. 20, lines 27-36, which generally describes the timing of the transmission of a periodic packet P2 or a statistical packet S2 based on the packet type and the size.) Such a teaching of *Dighe* does not constitute a disclosure of a transmission of a sequence of frames of **a first designated frame type when an entry exists for a given designated type of frame**. Because this missing limitation is not shown by the identified portions of *Dighe* or any other portion of *Dighe*, Claim 15 is allowable. Favorable action is requested.

Claims 22, 28, 32, and 34 are allowable because the Office Action fails to identify the portions of *Dighe* that disclose the respective the limitations of these claims, as required by 37 C.F.R. §1.104(c)(2). 37 C.F.R. §1.104(c)(2) requires the Examiner to designate as nearly as practicable the particular part of a reference that is relied on to reject the pending claims when the reference is complex or shows or describes inventions other than that claimed by the applicant. (See 37 C.F.R. §1.104(c)(2)). The Office Action fails to meet this standard in rejecting Claims 22, 28, 32, and 34. For example, paragraph 24 of the Office Action states that “Claims 22-24, 26-27; 28-31; 32-33; 34-36 contain the similar limitations set forth of Claims 15-21. Therefore, Claims 22-24, 26-36 are rejected for the similar rationale set forth in Claims 15-21.” However, upon careful examination of the limitations of the above-mentioned claims, none of the rejected Claims 22-24, 26-27, 28-31, 32-33, and 34-36 includes the same or similar limitations as Claims 15-21. For example, none of the Claims 15-21 includes Claim 22’s limitation of “scheduling a time for periodic transmission of the frame from a node in the network based on the identified frame type,” Claim 28’s limitation of “determining transmission time for a sequence of frames of a first type in response to the stored transmission schedule table to initiate synchronous transmission of frames of the first type to each of the serially connected nodes,” Claim 32’s limitation of “initiating transmission of a sequence of frames of a first frame type at a frame type start time at a predetermined rate during an allocated portion of a sample window to each of the plurality of serially connected nodes,” or Claim 34’s limitation of “initiating transmission of a sequence of frames of a first frame type at a frame type start time at a predetermined rate during an

allocated portion of a sample window to each of the plurality of serially connected nodes.” At least for these reasons, the argument in the Office Action that the portions of *Dighe* identified to reject Claims 15-21 also show the limitations of Claims 22, 28, 32, and 34 fails the standard set forth in 37 C.F.R. §1.104(c)(2); the identified portions of *Dighe* allegedly supporting the rejection of Claims 15-21 provide no basis for Applicants to decide whether to amend the rejected Claims 22-24, 26-27, 28-31, 32-33, and 34-36. Thus, Claims 22, 28, 32, and 34 are allowable.

If the Examiner continues to maintain the rejection of Claims 22, 28, 32, and 34, Applicants respectfully submit that the next Office Action rejecting these claims should identify the portions of the reference that are relied on to show each and every limitation of Claims 22, 28, 32, and 34. Further, Applicants respectfully submit that such an Office Action should be a non-final Office Action so that Applicants will have at least one opportunity to decide whether to amend these claims in view of the identified portions of the reference. Favorable action is requested.

As they depend from allowable independent Claims 1, 7, 11, 15, 22, 28, 32, and 34, dependent Claims 2-6, 8-10, 12-14, 16-21, 23-27, 29-31, 33, and 35-36 are also allowable. Favorable action is requested.

Section 103 Rejections

The Examiner rejects Claims 4, 14, and 25 under 35 U.S.C. § 103(a) as being unpatentable over *Dighe* in view of U.S. Patent No. 6,163,808 issued to Kilkki (“*Kilkki*”). The rejections of these claims are moot in view of the arguments presented above because these claims depend from allowable independent Claims 1, 11, and 22, respectively. For at least these reasons, Applicants respectfully request allowance of Claims 4, 14, and 25.

CONCLUSION


Applicants have made an earnest attempt to place this case in condition for immediate allowance. For the foregoing reasons and for other reasons clear and apparent, Applicants respectfully request reconsideration and allowance of the pending claims.

Although no fees are believed due, the Commissioner is hereby authorized to charge any fee or credit any overpayment to Deposit Account No. 02-0384 of Baker Botts, LLP.

If there are matters that can be discussed by telephone to advance prosecution of this application, Applicants invite the Examiner to contact its attorney at the number provided below.

Respectfully submitted,

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